

## SEQUENCE LISTING

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<120> Engineered Stimulus-Responsive Switches

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<150> US 60/242,546  
<151> 2000-10-23

<160> 20

<170> PatentIn version 3.0

<210> 1  
<211> 21  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Zinc finger consensus sequence

<220>  
<221> misc\_feature  
<222> (2)..(3)  
<223> wherein Xaa at positions 2, 3 can be any amino acid

<220>  
<221> misc\_feature  
<222> (5)..(7)  
<223> wherein Xaa at positions 5, 6, 7 can be any amino acid

<220>  
<221> misc\_feature  
<222> (9)..(13)  
<223> wherein Xaa at positions 9, 10, 11, 12, 13 can be any amino acid

<220>  
<221> misc\_feature  
<222> (15)..(16)  
<223> wherein Xaa at positions 15, 16 can be any amino acid

<220>  
<221> misc\_feature  
<222> (18)..(20)  
<223> wherein Xaa at positions 18, 19, 20 can be any amino acid

<400> 1  
Cys Xaa Xaa Cys Xaa Xaa Xaa Phe Xaa Xaa Xaa Xaa Xaa Leu Xaa Xaa  
1 5 10 15

His Xaa Xaa Xaa His  
20

<210> 2  
<211> 22  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Zinc finger consensus sequence

<220>  
<221> misc\_feature  
<222> (2)..(4)  
<223> wherein Xaa at positions 2, 3, 4 can be any amino acid

<220>  
<221> misc\_feature  
<222> (6)..(8)  
<223> wherein Xaa at positions 6, 7, 8 can be any amino acid

<220>  
<221> misc\_feature  
<222> (10)..(14)  
<223> wherein Xaa at positions 10, 11, 12, 13, 14 can be any amino acid

<220>  
<221> misc\_feature  
<222> (16)..(17)  
<223> wherein Xaa at positions 16, 17 can be any amino acid

<220>  
<221> misc\_feature  
<222> (19)..(21)  
<223> wherein Xaa at positions 19, 20, 21 can be any amino acid

<400> 2  
Cys Xaa Xaa Xaa Cys Xaa Xaa Xaa Phe Xaa Xaa Xaa Xaa Leu Xaa  
1 5 10 15

Xaa His Xaa Xaa Xaa His  
20

<210> 3  
<211> 23  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Zinc finger consensus sequence

<220>  
<221> misc\_feature  
<222> (2)..(5)  
<223> wherein Xaa at positions 2, 3, 4, 5 can be any amino acid

<220>  
<221> misc\_feature

<222> (7)..(9)  
<223> wherein Xaa at positions 7, 8, 9 can be any amino acid

<220>  
<221> misc\_feature  
<222> (11)..(15)  
<223> wherein Xaa at positions 11, 12, 13, 14, 15 can be any amino acid

<220>  
<221> misc\_feature  
<222> (17)..(18)  
<223> wherein Xaa at positions 17, 18 can be any amino acid

<220>  
<221> misc\_feature  
<222> (20)..(22)  
<223> wherein Xaa at positions 20, 21, 22 can be any amino acid

<400> 3  
Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Phe Xaa Xaa Xaa Xaa Xaa Leu  
1 5 10 15

Xaa Xaa His Xaa Xaa Xaa His  
20

<210> 4  
<211> 21  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Zinc finger consensus sequence

<220>  
<221> misc\_feature  
<222> (2)..(3)  
<223> wherein Xaa at positions 2, 3 can be any amino acid

<220>  
<221> misc\_feature  
<222> (4)..(16)  
<223> wherein Xaa at positions 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 can be any amino acid

<220>  
<221> misc\_feature  
<223> wherein Xaa at positions 19, 20 can be any amino acid

<400> 4  
Cys Xaa Xaa Cys Xaa  
1 5 10 15

Xaa Cys Xaa Xaa Cys  
20

<210> 5  
<211> 7

<212> PRT  
<213> Artificial Sequence

<220>  
<223> target sequence for protein kinase A

<400> 5  
Leu Arg Arg Ala Ser Leu Gly  
1 5

<210> 6  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> substrate for casein kinase II

<400> 6  
Arg Arg Arg Glu Glu Glu Thr Glu Glu Glu  
1 5 10

<210> 7  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> substrate sequence for v-Abl tyrosine kinase

<400> 7  
Glu Ala Ile Tyr Ala Ala Pro Phe Ala Lys Lys Lys  
1 5 10

<210> 8  
<211> 27  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer for leucine zipper motif

<400> 8  
atcgcgcaca tgaaaacaact tgaagac

27

<210> 9  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer for leucine zipper motif

<400> 9  
tcagcggttcg ccaactaatt tc

22

<210> 10		
<211> 26		
<212> DNA		
<213> Artificial Sequence		
 <220>		
<223> primer for lambda repressor		
 <400> 10		
atgagcacaa aaaagaaaacc attaac	26	
 <210> 11		
<211> 18		
<212> DNA		
<213> Artificial Sequence		
 <220>		
<223> primer for lambda repressor		
 <400> 11		
gcttacccag cgctccgc	18	
 <210> 12		
<211> 504		
<212> DNA		
<213> Artificial Sequence		
 <220>		
<223> cI-bZIP repressor variant		
 <400> 12		
atgagcacaa aaaagaaaacc attaacacaa gagcagcttggaggacgcacg tcgccttaaa	60	
gcaatttatg aaaaaaaagaa aaatgaactt ggcttatccc aggaatctgt cgccagacaag	120	
atggggatgg ggcagtcagg ctgggtgct ttatataatg gcatcaatgc attaaatgct	180	
tataacgccc cattgcttac aaaaattctc aaagtttagcg ttgaagaatt tagcccttca	240	
atcgccagag aaatctacga gatgtatgaa gcggtagta tgcagccgtc acttagaagt	300	
gagttatgagt accctgtttt ttctcatgtt caggcaggga tttcttcacc taagcttaga	360	
acctttacca aaggtgatgc ggagcgctgg gtaagcatcg cgcacatgaa acaacttgaa	420	
gacaagggttg aagaattgct ttgcaaaaat tatcacttgg aaaatgaggt tgccagatta	480	
aagaaatttag ttggcgaacg ctga	504	
 <210> 13		
<211> 35		
<212> DNA		
<213> Artificial Sequence		

<220>  
 <223> primer for coding sequence of a temperature sensitive form of  
 the lambda repressor containing an AvaI sit

<400> 13  
 ttacaacgccc cgggtcagcc aaacgtctct tcagg 35

<210> 14  
 <211> 71  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer for the coding sequence of a temperature sensitive form  
 of lambda repressor

<400> 14  
 atgggcattt tctcgagtca gccgggccat accccgcattc cggcggccag cacaaaaaaag 60

aaaccattaa c 71

<210> 15  
 <211> 784  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> TBD-cI repressor variant

<400> 15  
 atgggcattt tctcgagtca gccgggccat accccgcattc cattaacaca agagcagcac 60  
 aaaaaagaaaa ccattaacac aagagcagct tgaggacgca cgtgcctta aagcaattta 120  
 tgaaaaaaaaag aaaaatgaac ttggcttatac ccaggaatct gtcgcagaca agatggggat 180  
 ggggcagtca ggcgttggtg ctttatcaa tggcatcaat gcattaaatg cttataacgc 240  
 cgcattgctt aaaaaattc tcaaagttag cgttgaagaa tttagccctt caatcgccag 300  
 agaaatctac gagatgtatg aagcggttag tatgcagccg tcacttagaa gtgagttatga 360  
 gtaccctgtt catcaccatc accatcaattt ttctcatgtt cagggcaggta tgttctacc 420  
 taagcttaga acctttacca aaggtgatgc ggagagatgg gtaagcaca aaaaaaaagc 480  
 cagtgatttt gcattctggc ttgaggttga aggttaattcc atgaccgcac caacaggctc 540  
 caagccaaagc ttccctgacg gaatgttaat tctcggttac cctgagcagg ctgttgagcc 600  
 aggtgatttc tgcatagcca gacttgggg tgatgagttt accttcaaga aactgatcag 660  
 ggatagcggt caggtgtttt tacaaccact aaacccacag tacccaatga tcccatgcaa 720  
 tgagagttgt tccgttgtgg ggaaagttat cgctagtcag tggcctgaag agacgtttgg 780  
 ctga 784

<210> 16  
 <211> 61  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer for coding sequence of a temperature sensitive form of lambda repressor

<400> 16  
 atgggcattt tctcgagtca gccgggcat accccgcattt cattaacaca agagcagtt 60  
 g 61

<210> 17  
 <211> 545  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> TBD-cI-bZIP repressor variant

<400> 17  
 atgggcattt tctcgagtca gccgggcat accccgcattt cattaacaca agagcagcac 60  
 aaaaaagaaa ccattaacag gacgcacgtc gccttaaaggc aatttatgaa aaaaaagaaaa 120  
 atgaacttgg cttatcccag gaatctgtcg cagacaagat ggggatgggg cagtcaggcg 180  
 ttggtgcttt attaatggc atcaatgcattt taaatgctta taacgcccga ttgcttacaa 240  
 aaattctcaa agtttagcggtt gaagaattta gcccttcaat cgccagagaa atctacgaga 300  
 tgtatgaagc ggttagttagtgc cagccgtcac tttagaagtga gtatgagtac cctgttttt 360  
 ctcatgttca ggcaggatg ttctcacca agcttagaac cttagacaaa ggtgatgcgg 420  
 agcgctgggt aagcatcgcg cacatgaaac aacttgaaga caaggttggaa gaattgtttt 480  
 cgaaaaattttt tcacttggaa aatgaggatggccatggaa gaaatttagtt ggccaaacgct 540  
 ga 542

<210> 18  
 <211> 525  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> TBP-cI-bZIP repressor variant with a deletion

<400> 18  
 atgggcattt tctcgagtca gccgggcat accccgcattt cattaacaca agagcagtt 60  
 gaggacgcac gtcgccttaa agcaattttt gaaaaaaaaga aaaatgaact tggcttatcc 120  
 caggaatctg tcgcagacaa gatggggatg gggcagtcag gcgttgggc tttatataat 180

ggcatcaatg cattaaatgc ttataacgcc gcattgctta caaaaattct caaagttgc 240  
gttgaagaat ttagcccttc aatcgccaga gaaatctacg agatgtatga agcggttagt 300  
atgcagccgt cacttagaag tgagtatgag taccctgttt tttctcatgt tcaggcaggg 360  
atgttctcac ctaagcttag aacctttacc aaaggtgatg cggagcgctg ggtaagcatc 420  
gcgcacatga aacaacttga agacaagggtt gaagaattgc tttcgaaaaa ttatcacttg 480  
gaaaatgagg ttgccagatt aaagaaatta gttggcgaac gctga 525

<210> 19  
<211> 52  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer containing sequence for a weak constitutive tetracycline resistance promoter

<400> 19  
gtttgacagc ttatcatcga atagcttaa tgcgctagct agacaagtac tc 52

<210> 20  
<211> 52  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer containing sequence for a weak constitutive tetracycline resistance promoter

<400> 20  
gagtacttgt ctagctagcg cattaaagct attcgatgtat aagctgtcaa ac 52